

What is Claimed is:

1. A method for fabricating close spaced mirror arrays on a semiconductor crystal substrate where a mask is used for etching comprising the following steps:

providing a said substrate oriented with the <100> surface horizontal for placement of said mask over it and having an alignment feature on the perpendicular <110> crystal plane;

providing a mask with perpendicular cross arms and a diamond centered on said cross arms the centers of said diamonds lying on a line offset from said <110> plane by 45 degrees when said mask is placed in said etching position;

doing an etch to provide an array of membranes for steerable mirrors with each mirror membrane being defined by an octagon with four sides being a vertical etch back on the <100> plane and the alternating other four sides being defined by a <111> axis seeking etch.

2. A method as in Claim 1 where said cross arms define the <111> etch planes and said diamonds the lateral undercut <100> planes.

3. A method as in claim 1 where said etch uses potassium hydroxide (KOH) as an etchant.